Department of Radiology
Roy J. and Lucille A. Carver College of Medicine
The University of Iowa

Post doc position for Cardiac MRI deep learning

Position Available

The Roy J. and Lucille A. Carver College of Medicine invites applications for a 100% postdoctoral position within the Department of Radiology.

The primary focus of this research position is development and clinical translation of deep learning based cardiac MRI analysis including but not limited to segmentation, motion and deformation analysis and advanced image reconstruction using deep learning. The candidate will be expected to develop and implement deep learning models for image segmentation, deformation analysis, reconstruction, and analysis algorithms. These approaches will provide highly efficient cardiac MRI image acquisition and processing.

We seek an enthusiastic and motivated postdoctoral researcher with strong background in MRI physics, image processing and/or deep learning. The postdoc will be exposed to diverse cardiac MRI exams for both pediatric and adult population including complex congenital heart diseases. The primary infrastructure for MRI exams involves both 1.5 and 3T Siemens scanners.

Main duties and responsibilities

- Perform research towards the fulfilment of the project objectives
- Disseminate results through the publication of scientific papers and the delivery of seminars and conference presentations
- Keep up to date with current developments in the research field through regular literature surveys

Education requirement

- PhD in physics, electrical engineering, applied mathematics, computer science or a similar discipline. Applicants who expect to have submitted their PhD thesis by the application deadline may also apply.

Required qualifications

1. Excellent verbal, written and interpersonal communication skills.
2. Ability to take initiative and excel in problem solving.
3. Ability to work both independently and participate in teams.
4. Background in MRI physics and image processing.
5. Proficiency in deep/machine learning (e.g. PyTorch, Tensorflow or Keras).
6. Demonstrated computer programming skills in Matlab, Python or Similar.

Desirable Qualifications

1. Experience in MRI image acquisition and reconstruction.
2. Previous experience in cardiac MRI acquisition and/or reconstruction.
For more information, please see: https://medicine.uiowa.edu/radiology/
Applicable background checks will be conducted.

The University of Iowa is an equal opportunity/affirmative action employer. All qualified applicants are encouraged to apply and will receive consideration for employment free from discrimination on the basis of race, creed, color, national origin, age, sex, pregnancy, sexual orientation, gender identity, genetic information, religion, associational preference, status as a qualified individual with a disability, or status as a protected veteran.